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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Masakatsu Matsui

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EXAMINER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,894	Applicant(s) MATSUI, MASAKATSU	
	Examiner ANEETA PATANKAR	Art Unit 4134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/14/2007, 5/5/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On paragraph 206, after “flexible disk”, “etc.” should be deleted since the computer readable medium can not be electronic signal or waveform. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-8, 10 and 12-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. No. 2002/0105873 A1 to *Watanabe et al.* in view of U.S. Patent No. 7,106,680 B2 to *Kato et al.*

As to **claim 1**, *Watanabe* discloses a recording condition setting method of setting record timing conditions of an optical disk device when a laser beam pulse is created and information is recorded on a recording surface of an optical disk rotated by a constant angular velocity, the recording condition setting method comprising the steps of: acquiring a plurality of setting values of the record timing conditions for a number of group data conforming to a linear velocity of the optical disk at a record position on the recording surface where the information is recorded (Fig. 1, paragraph 44).

Watanabe is deficient in disclosing a recording condition setting method comprising the steps of: setting the plurality of setting values for the number of group data to the optical disk device one by one at the number of times.

However, *Kato* discloses a recording condition setting method of setting record timing conditions of an optical disk device when a laser beam pulse is created and information is recorded on a recording surface of an optical disk rotated by a constant angular velocity, the recording condition setting method comprising the steps of: setting the plurality of setting values for the number of group data to the optical disk device one by one at the number of times (Fig.5, column 9, lines 59-68, column 10, lines 1-24, column 13, lines 51-63 and column 14, lines 25-35).

Watanabe and *Kato* are analogous art because they are from the same field of endeavor with respect to recording devices.

At the time of invention, it would have been obvious to a person of ordinary skilled in the art to have created a recording condition setting method comprising the steps of acquiring setting values and setting set values as taught by *Kato*. The suggestion/motivation would have been in order to minimize mark deviation (Fig. 5, column 9, lines 59-68, column 10, lines 1-24).

As to **claim 2**, *Watanabe* is deficient to disclosing the recording condition setting method wherein the number of group data include parameters which specify a configuration of the laser beam pulse.

However, Kato discloses the recording condition setting method wherein the number of group data include parameters which specify a configuration of the laser beam pulse (Fig. 5, column 9, lines 59-68, column 10, lines 1-24). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 3**, *Watanabe* is deficient to disclosing the recording condition setting method wherein the parameters contain any of a pulse width of the laser beam pulse, a rise timing of the laser beam pulse, and a fall timing of the laser beam pulse.

However, *Kato* discloses the recording condition setting method wherein the parameters contain any of a pulse width of the laser beam pulse, a rise timing of the laser beam pulse, and a fall timing of the laser beam pulse (Fig. 4, column 8, lines 51-68, column 9, lines 1-3). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 4**, *Watanabe* is deficient in disclosing the recording condition setting method wherein the parameters contain the rise timing of the pulse and the fall timing of the pulse, and the setting step is configured so that the plurality of setting values for the number of group data are respectively set one by one with respect to each of the number of group data containing the rise timing and the fall timing.

However, *Kato* discloses the recording condition setting method wherein the parameters contain the rise timing of the pulse and the fall timing of the pulse, and the setting step is configured so that the plurality of setting values for

the number of group data are respectively set one by one with respect to each of the number of group data containing the rise timing and the fall timing (Fig. 4, column 8, lines 51-68, column 9, lines 1-3). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 5**, *Watanabe* is deficient in disclosing the recording condition setting method wherein the acquiring step is configured so that a plurality of values each depending on a length of a mark area to be formed on the recording surface are acquired with respect to each of the number of group data, respectively.

However, *Kato* discloses the recording condition setting method wherein the acquiring step is configured so that a plurality of values each depending on a length of a mark area to be formed on the recording surface are acquired with respect to each of the number of group data, respectively (Fig. 4, column 8, lines 51-68, column 9, lines 1-3). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 6**, *Watanabe* is deficient in disclosing the recording condition setting method wherein the setting step is configured so that each of the plurality of values for the number of group data is set to the optical disk device one by one with respect to each of a plurality of lengths of mark areas (Fig. 4, column 8, lines 51-68, column 3, lines 1-3). In addition, the same motivation is used as the rejection for claim 6.

As to **claim 7**, *Watanabe* is deficient in disclosing the recording condition setting method wherein the acquiring step is configured so that either a plurality of values each depending on a length of a space area immediately preceding a mark area to be formed on the recording surface or a plurality of values each depending on a length of a space area immediately following the mark area are acquired with respect to each of the number of group data, respectively.

However, *Kato* discloses the recording condition setting method wherein the acquiring step is configured so that either a plurality of values each depending on a length of a space area immediately preceding a mark area to be formed on the recording surface or a plurality of values each depending on a length of a space area immediately following the mark area are acquired with respect to each of the number of group data, respectively (Fig. 4, column 7, lines 52-12). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 8**, *Watanabe* is deficient in disclosing the recording condition setting method wherein the setting step is configured so that each of the plurality of values for the number of group data is set to the optical disk device one by one with respect to each of a plurality of lengths of space areas.

However, *Kato* discloses the recording condition setting method wherein the setting step is configured so that each of the plurality of values for the number of group data is set to the optical disk device one by one with respect to each of a plurality of lengths of space areas (Fig. 4, column 7, lines 52-12). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 10**, *Watanabe* discloses the recording condition setting method wherein the acquiring step is configured so that at least one of the plurality of setting values for the number of group data is acquired from results of predetermined operations performed based on a plurality of sets of a known linear velocity and a known setting value (Column 2, lines 25-58).

As to **claim 12**, *Watanabe* discloses a recording method of recording information on a recording surface of an optical disk rotated by a constant angular velocity, by creating a laser beam pulse and using record timing conditions of an optical disk device, the recording method comprising the step of recording the information on the optical disk using the record timing conditions set up by the recording condition setting method (Fig. 1, paragraphs 44-50).

As to **claim 13**, *Watanabe* discloses a computer-readable recording medium embodied therein for causing a computer of an optical disk device to execute a recording condition setting method, wherein the optical disk device records information on a recording surface of an optical disk rotated by a constant angular velocity, and the recording condition setting method sets record timing conditions of the optical disk device when a laser beam pulse is created and the information is recorded on the optical disk, the recording condition setting method comprising the steps of record timing conditions for a number of group data conforming to a linear velocity of the optical disk at a record position on the recording surface where the information is recorded (Fig. 1, paragraph 44).

Watanabe is deficient disclose a recording condition setting method comprising the steps of: setting the plurality of setting values for the number of group data to the optical disk device one by one at the number of times.

However, *Kato* discloses a computer-readable recording medium embodied therein for causing a computer of an optical disk device to execute a recording condition setting method, wherein the optical disk device records information on a recording surface of an optical disk rotated by a constant angular velocity, and the recording condition setting method sets record timing conditions of the optical disk device when a laser beam pulse is created and the information is recorded on the optical disk, the recording condition setting method comprising the steps of: setting the plurality of setting values for the number of group data to the optical disk device one by one at the number of times (Fig. 5, column 9, lines 59-68, column 10, lines 1-24).

Watanabe and *Kato* are analogous art because they are from the same field of endeavor with respect to recording devices.

At the time of invention, it would have been obvious to a person of ordinary skilled in the art to have created a recording condition setting method comprising the steps of acquiring setting values and setting set values as taught by *Kato*. The suggestion/motivation would have been in order to minimize mark deviation (Fig. 5, column 9, lines 59-68, column 10, lines 1-24).

As to **claim 14**, *Watanabe* discloses an optical disk device which records information on an optical disk, the optical disk device comprising: a linear-velocity

acquiring unit acquiring a linear velocity of the optical disk at a record position on a recording surface of the optical disk which is rotated by a constant angular velocity (Paragraphs 14-16); a setting-value acquiring unit acquiring a plurality of setting values of record timing conditions for a number of group data, respectively, by retrieving one of a plurality of setting values, which are obtained beforehand for every linear velocity for the number of group data, based on the linear velocity acquired by the linear-velocity acquisition unit (80) (Fig. 1, paragraph 59).

Watanabe is deficient in disclosing an optical disk device which records information on an optical disk, the optical disk device comprising: a setting unit setting the plurality of setting values for the number of group data to the optical disk device one by one at the number of times; and a recording unit recording the information on the optical disk using each of the plurality of setting values set by the setting unit.

However, *Kato* discloses an optical disk device which records information on an optical disk, the optical disk device comprising: a setting unit (37) setting the plurality of setting values for the number of group data to the optical disk device one by one at the number of times; and a recording unit recording the information on the optical disk using each of the plurality of setting values set by the setting unit (Fig. 23, column 19, lines 6-68, column 20, lines 1-51).

Watanabe and *Kato* are analogous art because they are from the same field of endeavor with respect to recording devices.

At the time of invention, it would have been obvious to a person of ordinary skilled in the art to have created a recording condition setting method comprising the steps of acquiring setting values and setting set values as taught by *Kato*. The suggestion/motivation would have been in order to minimize mark deviation (Fig. 5, column 9, lines 59-68, column 10, lines 1-24).

As to **claim 15**, *Watanabe* discloses the optical disk device wherein the optical disk is a rewritable optical disk (Fig. 1, paragraphs 29-34).

As to **claim 16**, *Watanabe* discloses the optical disk device wherein the rewritable optical disk is in conformity with any of specifications of CD-RW, DVD-RW and DVD+RW (Fig. 1, paragraphs 29-34).

4. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. No. 2002/0105873 A1 to *Watanabe et al.* in view of U.S. Patent No. 7,106,680 B2 to *Kato et al.* in further view of U.S. Patent No. 6,377,525 B1 to *Iida*.

As to **claim 9**, *Watanabe* as modified is deficient in disclosing the recording condition setting method wherein the acquiring step is configured so that at least one of the plurality of setting values for the number of group data is acquired based on a known relation formula which represents a relation between the linear velocity and the setting value.

However, *Iida* discloses the recording condition setting method wherein the acquiring step is configured so that at least one of the plurality of setting values for the number of group data is acquired based on a known relation

formula which represents a relation between the linear velocity and the setting value (Column 12, lines 58-68, column 13, lines 1-5).

Watanabe, Kato, Iida are analogous art because they are from the same field of endeavor with respect to optical disk apparatuses.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have created a recording condition setting method wherein there is a step of acquiring a plurality of setting values of the record timing conditions for a number of group data and such that the acquiring step is configured so that at least one of the plurality of setting values for the group data is based on a formula as taught by *Iida*. The suggestion/motivation would have been in order to accurately calculate cross talk (Column 13, lines 12-18).

5. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. No. 2002/0105873 A1 to *Watanabe et al.* in view of U.S. Patent No. 7,106,680 B2 to *Kato et al.* in further view of U.S. Patent No. 7,027,370 B1 to *Adachi et al.*

As to **claim 11**, *Watanabe* as modified is deficient in disclosing the recording condition setting method wherein the predetermined operations are either approximation computations or interpolation computations.

However, *Adachi* discloses the recording condition setting method wherein the predetermined operations are either approximation computations or interpolation computations (Fig. 4, column 10, lines 10-40).

Watanabe and *Adachi* are analogous art because they are from the same field of endeavor with respect to optical recording devices.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have created a recording condition setting method that comprises the step of acquiring a plurality of setting values of the recording timing conditions for a number of group data and having predetermined operations that either are approximation computations or interpolation computations as taught by *Adachi*. The suggestion/motivation would have been accurately calculating the proper recording conditions necessary (Fig. 4, column 10, lines 10-40).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANEETA PATANKAR whose telephone number is (571)272-9773. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LunYi Lao can be reached on (571)272-7671. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4134

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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